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1997P07720US03 (60,426-268)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Oestreicher et al. ART UNIT: 3661
SERIAL NO.: 09/810,943 EXAMINER: Pipala, E.
FILED: March 16, 2001
FOR: A METHOD AND SYSTEM FOR DETERMINING WEIGHT
AND POSITION OF A VEHICLE SEAT OCCUPANT

ATTORNEY DOCKET NO: 60,426-268 (1997P7720US03)

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF

Dear Sir:

Responsive to the Examiner's Answer dated July 13, 2004, please consider the following remarks. The appeal brief fee has already been paid. Any additional fees or credits may be charged or applied to Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds.

REMARKS

Appellant respectfully reiterates all of the arguments made in the Appeal Brief and in previous Office Action responses to address the Examiner's Answer. Additional arguments, prepared in response to new issues raised in the Examiner's Answer, are set forth below.

Prior Art of Record

The examiner states, “[n]o prior art is relied upon by the examiner in the rejection of the claims under appeal.”

A list of the prior art cited by the examiner against the pending claims is as follows:

- (1) Research Disclosure 39916
- (2) U.S. Patent No. 5,810,392 to Gagnon
- (3) U.S. Patent No. 3,661,220 to Harris
- (4) U.S. Patent No. 5,906,393 to Mazur et al.

Grounds of Rejection

In Item (11) the examiner argues that claims 58-60 and 66-68 stand rejected under 35 U.S.C. 103(a) in view of the Research Disclosure and Gagnon and Harris and Huss. In Item (13), the examiner argues that claim 65 is rejected under 35 U.S.C. 103(a) in view of the Research Disclosure and Gagnon and Harris and Mazur. However, in item (19), the examiner indicates that claims 58-60, 65-68 and claim 73 are allowable.

In the final rejection the examiner indicated that claims 58-60 and 66-68 were allowable. In the Examiner's Answer, the examiner withdrew the rejection to claims 65 and 73 (see Item (11)-(K)). Thus, appellant asserts that claims 56 and 57 are allowed and claims 58-60, 65-68 and 73 are allowable.

Response to Arguments

A. Claims 36-40

The examiner now argues that Harris is analogous art because the reference is within the field of the inventor's endeavor. The examiner argues that Harris is directed to a weighing system in the "vehicle art" so therefore it is analogous.

The fact that appellant's and Harris' weighing systems are both used in vehicles does not make them analogous. As explained in the Appeal Brief, the Harris weighing system measures a vehicle payload of logs. This weighing system is not within the inventor's field of endeavor. The inventor's field of endeavor is a weighing system for vehicle seat occupants. Sensor systems for vehicle payloads and for vehicle seat occupants have drastically different design objectives.

Appellant's system must have a high sensitivity and be capable of accurately measuring a seat occupant weight of no more than a few hundred pounds. The Harris system must be capable of measuring payloads that exceed several thousands of pounds. Thus, the Harris system does not require the level of sensitivity that appellant's system requires.

Appellant's system also must be able to quickly and accurately measure a continuously variable seat occupant weight. Seat occupants change positions on the vehicle seat during vehicle operation, which in turn affects the amount of weight applied to the seat and the distribution of weight over the seat. For example, an occupant may lean forward, which transfers some weight to the vehicle floor via the occupant's feet. Contrast this to a position where the occupant is fully reclined with feet off of the floor.

Appellant's system must be able to quickly and accurately measure and monitor these changes to adjust airbag deployment accordingly. The Harris system has no such requirement. The logs are loaded onto the trailer. The logs do not change position and the load does not vary during vehicle operation. Thus, the Harris system has very different operating requirements than appellant's system and therefore cannot be considered as being in the inventor's field of endeavor.

The examiner also argues that if the Harris reference did "disclose the field of determining weight and position of a vehicle seat, then the rejection should not be rejected under 103(a)." Appellant questions the relevancy of this argument, as Harris clearly does not disclose a system for determining seat occupant weight, and certainly does not disclose a seat occupant weight system mounting configuration as set forth in the claims.

In response to appellant's argument that there is no motivation or suggestion to modify the Research Disclosure with Gagnon or Harris, the examiner now argues that one of ordinary skill in the art would have been motivated "to incorporate the teaching of Gagnon and Harris into the system of Research Disclosure in order to provide more detail of apparatus with the weight system." This is not sufficient motivation or suggestion to justify a modification of the references and is not supported by the teachings of the references or the prior art in general.

Both the Research Disclosure and Gagnon teach the use of load cells mounted between two rigid seat structures to determine seat occupant weight. Harris teaches the use of a steel load block assembly mounted between the main vehicle frame and a log support frame where the steel blocks include strain gauges that are used to measure the weight of the logs. There is no teaching in Harris of the use of resilient or deflectable portions for strain gauges that are

incorporated into vehicle seat assemblies. Further, there is no teaching in any of the references of how deflectable portions that support strain gages would be incorporated into a seat mounting structure. The only disclosure of such a seat mount structure is found in appellant's application. This is a situation where the examiner is clearly relying on hindsight reconstruction of the claimed invention, with the examiner using the appellant's structure as a template and selecting elements from references to fill in the gaps.

B. Claims 41-44, 46, 47, 49, 50, 54, and 55

The examiner argues that if Harris did teach a seat sensor with a deflectable portion that deflects in response to an occupant weight force, "then the rejection should be 102 instead of 103." Again, appellant questions the relevancy of this argument because Harris clearly does not disclose a system for determining seat occupant weight, and certainly does not disclose a seat occupant weight system mounting configuration as set forth in the claims.

The examiner cannot look at the references in a vacuum. The Harris sensor cannot simply be plucked out of the logging truck and inserted into a vehicle seat. The Harris sensor is mounted between the main vehicle frame and a log support frame with a mounting structure and configuration that is very different than the sensor mounting structure and configuration shown in the Research Disclosure and Gagnon. Additionally, all of the mounting structures and configurations shown in the references (Harris, Research Disclosure, and Gagnon) are very different than that set forth in appellant's disclosure and claims.

C. Claim 45

In the Appeal Brief appellant argued that the claimed features were not disclosed in the cited references. The examiner originally argued that the features of claim 45 were found in Figure 3 of Harris. Now the examiner argues that this feature is shown as component 20 in Figure 7B of Gagnon.

Claim 45 requires that each sensor include a mounting portion for attachment to a seat structure that receives the weight force, a support portion mounted to a seat track member, and a deflectable portion positioned between the mounting and the support portions. As shown in Figure 7B, Gagnon discloses a rigid seat pan member 18 (Figure 3) and a rigid member 19 where load cells 20 are mounted between these two rigid structures 19 and 18. Thus, Gagnon does not teach a sensor with a support portion mounted to a seat track member and a mounting portion attached to a seat structure that receives the weight. Gagnon certainly does not teach a deflectable portion positioned between the mounting and support portions.

D. Claims 48 and 51

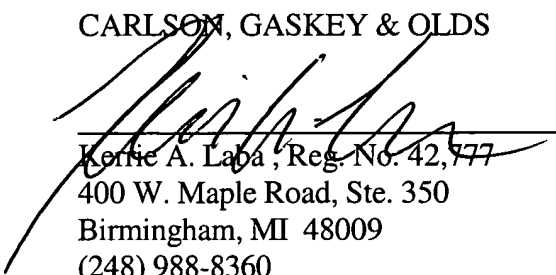
The examiner now argues that the feature set forth in claims 48 and 51 is disclosed at column 2, lines 25-30 of Gagnon. This section states that the prior art “teaches the use of this sensor to determine if a vehicle seat is occupied by an occupant weight up to 40 pounds (about 18.2 kilograms) or more than 40 pounds (about 18.2 kilograms) and send an appropriate signal to a safety device control unit.” There is no teaching in Gagnon of non-deployment if occupant weight is below a predetermined weight.

CONCLUSION

For the reasons set forth above and in the Appeal Brief, the rejection of all claims is improper and should be reversed.

Respectfully submitted,

CARLSON, GASKEY & OLDS

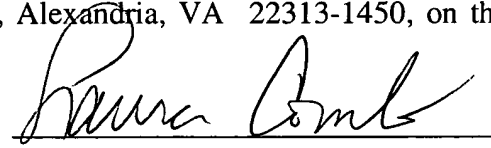


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Dated: September 10, 2004

CERTIFICATE OF MAIL

I hereby certify that the enclosed Reply Brief is being deposited, in triplicate, with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 10 day of September, 2004.



Laura Combs

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